

1 CLAIM 1. An integrated cooling device, comprising:  
2 a reservoir configured to contain a liquid coolant;  
3 a pump disposed within said reservoir, said pump being configured to  
4 circulate said liquid coolant between said reservoir and a heat source; and  
5 a fan configured to provide a flow of air across said circulating liquid  
6 coolant.

1 CLAIM 2. The integrated cooling device of claim 1 wherein said liquid coolant is  
2 circulated through a tubing arrangement.

1 CLAIM 3. The integrated cooling device of claim 1 further comprising a motor  
2 disposed within said reservoir, said motor being operably connected to said pump and  
3 said fan.

1 CLAIM 4. A cooling unit configured to circulate a liquid coolant, said cooling unit  
2 comprising:  
3 a reservoir configured to contain said liquid coolant;  
4 a tubing arrangement disposed at an outer surface of said reservoir, said  
5 tubing arrangement being fluidly communicable with a heat exchanging device;  
6 a pump disposed within said reservoir, said pump being configured to  
7 circulate said liquid coolant through said tubing arrangement to said heat exchanging  
8 device; and  
9 a fan configured to provide a flow of air across said tubing arrangement.

1 CLAIM 5. The cooling unit of claim 4 further comprising a motor disposed within  
2 said reservoir, said motor being operably connected to said pump and said fan.



1 CLAIM 15. The cooling unit of claim 14 wherein said secondary air inlet is positioned  
2 on said shroud to register with a space defined by adjacently positioned fins.

1 CLAIM 16. The cooling unit of claim 14 wherein said secondary air inlet includes an  
2 air directing tab associated therewith, said air directing tab being configured to channel  
3 air into said secondary air inlet upon a forced induction of air by said fan.

1 CLAIM 17. The cooling unit of claim 12 wherein said shroud is fabricated from a  
2 material selected from the group consisting of plastic, metal, fiberglass, and combinations  
3 of the foregoing materials.

1 CLAIM 18. The cooling unit of claim 4 further comprising a cover disposed over said  
2 fan.

1 CLAIM 19. The cooling unit of claim 18 wherein said cover comprises,  
2 a frame, and  
3 a plurality of vanes pivotally mounted within said frame, said vanes being  
4 configured to rotate into an open position in response to an airflow generated by said fan.

1 CLAIM 20. A thermal dissipation system, comprising:  
2 a heat exchanging unit; and  
3 a cooling unit disposed in fluid communication with said heat exchanging  
4 unit, said cooling unit comprising,  
5 a reservoir,  
6 a pump disposed within said reservoir, said pump being configured to  
7 circulate a liquid coolant between said reservoir and said heat exchanging unit, and  
8 a fan configured to remove heat from said liquid coolant.

1 CLAIM 21. The thermal dissipation system of claim 20 wherein said heat exchanging  
2 unit is a cold plate.

1 CLAIM 22. The thermal dissipation system of claim 21 wherein said cold plate is  
2 disposed in communication with electronic circuitry.

1 CLAIM 23. The thermal dissipation system of claim 20 wherein said cooling unit  
2 further comprises a motor disposed in operable communication with said pump and said  
3 fan, said motor being disposed within said reservoir.

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